

In the Pacific Northwest, conventional pea growers use metalaxyl or mefenoxam as a seed treatment to manage Pythium seed and seedling rot, however organic growers are not allowed to use these compounds to manage this disease. In on-farm organic farming research, an ARS scientist in collaboration with Washington State University scientists identified organic seed treatments (Biochar and cuprous oxide) when combined with seed priming practices (pre-plant seed-soaking times in water) improved stand development and reduced disease (Pythium and Rhizoctonia seed and seedling rot) severity in certified organic pea production systems. Currently most organic pea growers do not use any seed treatments and growers do not use priming techniques to improve plant emergence. This research determined that in replicated organic field trials, a combination of primed seed treated with cuprous oxide and biochar increased the stand development by an average of 26.5% and the yield by 2071 pounds per acre over the industry standard of no seed treatment.

